

REMARKS/ARGUMENTS

Responsive to the Official Action mailed March 1, 2004, applicants have further amended the claims of their application in an earnest effort to place this case in condition for allowance. Specifically, independent claim 5 has been amended, dependent claim 7 canceled, and dependent claims 8, 9, and 10 amended to depend from claim 5. Reconsideration is respectfully requested.

In the Action, the Examiner has rejected the pending claims under 35 U.S.C. §103, with reliance upon U.S. Patent No. 4,556,601, to Kirayoglu, in view of U.S. Patent No. 5,240,764, to Haid et al. However, it is respectfully maintained that applicants' claimed filter media is patentably distinct from these references, even if combined, and accordingly, the Examiner's rejection is respectfully traversed.

By this response, applicants have amended their pending claims to more particularly recite the novel *strength characteristics* of their hydroentangled filter media, performance characteristics which are clearly a significant improvement upon those disclosed in the principal Kirayoglu reference. Moreover, applicants must respectfully maintain that only their *own disclosure* would teach or suggest combining the teachings of the secondary Haid et al. patent with the principal Kirayoglu reference. Under such circumstances, applicants must respectfully question whether it is appropriate to reject their pending claims, which have been otherwise acknowledged to be novel by the Examiner, in formulating a rejection under 35 U.S.C. §103.

Applicants must respectfully maintain that the principal Kirayoglu reference simply fails to teach or suggest applicants' novel filter media construct, as claimed,

and moreover, any contemplated modifications of the teachings of this reference would only be suggested by applicants' own disclosure, not the references themselves.

Turning first to the Kirayoglu reference, it is to be noted that this reference is specifically limited in its teachings to the formation of "jet tracks, that is, a repeating pattern of closely spaced lines of fiber entanglement," an artifact of hydroentanglement which is ordinarily to be avoided. Ordinarily, and in accordance with the present invention as disclosed, hydroentanglement of fabrics is effected over substantially the entire expanse of fabric web, which is typically effected through the use of high pressure streams emitted from orifice strips which are closely spaced together (see, e.g., U.S. Patent No. 5,244,711, the disclosure of which is incorporated by reference in the present application).

As will be noted from the Kirayoglu reference, there is substantial discussion of the "jet tracking" phenomenon, contrary to typical hydroentanglement practice.

Notably, the disclosure of the Kirayoglu reference is also noteworthy for its *absence of any teachings of post-hydroentanglement processing*. The absence of such teachings cannot be refuted, particularly when the absence of such teachings were considered by the Patent Office to support the language of claim 1 of Kirayoglu which provides "said fabric not having been subjected to a shrinking operation."

In the Action, the Examiner has stated that "while the reference claims that their fabric is not subjected to a shrinking operation their disclosure does not teach away from using heat-treatment." Applicants must respectfully disagree, in that this

reference does not teach *any* post-hydroentanglement treatment, much less any specific teaching of heat-treatment.

Thus, when the reference itself is completely silent with regard to any teachings relating to post-hydroentanglement processing, with the further caveat that the fabric is not subjected to a shrinking operation, applicants must respectfully conclude that the only basis upon which one skilled in the art would rely upon the teachings of the secondary Haid et al. reference is *applicants' own disclosure*.

Moreover, applicants have maintained that their filter media construct exhibits improved performance characteristics when compared to the prior art. In this regard, applicants' have amended their claims to further distinguish their claimed construct from the Kirayoglu reference. In particular, applicants have specified normalized values for machine-direction and cross-direction tensile strengths, *per unit of fabric basis weight*. This data has been generated from the test data set forth in applicants' specification, and corresponds directly to the test data set forth in the Kirayoglu reference. As will be observed, applicants' claims specify strength characteristics which *specifically exceed* all of the examples set forth in the Kirayoglu reference, which comprise predominantly polyester fibers, as claimed.

As noted above, it is applicants' position that the principal Kirayoglu reference, at a minimum, fails to teach any heat-processing of the disclosed fabric, and can very reasonably be interpreted as *teaching away* from any post-hydroentanglement treatment. As such, a careful study of the Haid et al. reference is mandated to see if it can be properly relied upon for a rejection under 35 U.S.C. §103 of the pending claims.

First, it is respectfully noted that Haid et al. specifically *teaches away* from a fabric formed from predominantly polyester fibers, as claimed, with the fibers being subjected to post-entanglement heat-treatment. As noted at column 2, lines 13 *et seq.* of Haid et al.:

The fusible fibers are present in an amount from about 5-50 weight percent, preferably from about 10-30 weight percent, and the non-fusible fibers are present in an amount from about 50-95 weight percent, preferably 70-90 weight percent.

Thus, this reference, which is critical to the outstanding rejection under 35 U.S.C. §103, contemplates heat-treatment of a fabric construct including a relatively low percentage of fusible fibers, "preferably from about 10-20 weight percent."

The Haid et al. reference goes on to state:

Lightly bonding the nonwoven web strengthens the web and provides sufficient integrity for the web to be transported to a different location. . . . Thereafter, the lightly bonded web is hydraulically needled so that the fibers are entangled in a three-dimensional state. *Optionally, the hydraulically needled web is dried at a temperature sufficient to remelt the fusible fibers.* (Emphasis supplied.)

While the Haid et al. reference is critical to the rejection of the pending claims under 35 U.S.C. §103, it will be evident from the above passage that one skilled in the art must pick-and-choose among its diverse teachings. In the first instance, this reference teaches *heat-bonding prior to hydroentanglement*, in clear distinction from applicants' invention as disclosed. Thereafter, further heat treatment can be "*optionally*" effected.

Thus, the principal reference upon which the present claims are rejected under 35 U.S.C. §103 clearly fails to teach heat-treatment, as acknowledged by the Examiner, with the secondary reference (which specifically teaches a relatively low percentage of fusible fibers) merely contemplating *optional* post-entanglement heat-treatment. Applicants' must respectfully maintain that only their own disclosure would guide one skilled in the art to select among the various teachings in Haid et al., and then combine such teachings with the principal Kirayoglu reference, which is *devoid of any teachings* of heat-treatment.

Reference is respectfully made to M.P.E.P. Section 2143.01, which specifically admonishes that the "fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prime facie* obviousness" (citations omitted), and that "the proposed modification cannot render the prior art unsatisfactory for its intended purpose," and further that "the proposed modification cannot change the principle of operation of a reference." The principal Kirayoglu reference, admittedly, fails to teach any heat-processing, and thus, applicants must respectfully maintain that the proposed modification changes the principal of the reference, as specifically proscribed by the M.P.E.P. Moreover, it is, at best, *speculative* to theorize that modification of the Kirayoglu reference, in light of Haid et al., would not adversely impact the intended characteristics of the Kirayoglu fabric, since it is unclear what effect such heat treatment may have on the particular fabric constructs disclosed thereon. It should be kept in mind that Kirayoglu principally contemplates formation of "jet tracking," and thus it is speculative when the Examiner states that applicants' claimed performance

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characteristics "would obviously be present once the Kirayoglu product is modified to have more durability and abrasion resistance by heat-treating the web."

In view of the foregoing, formal allowance of claims 5, 6, and 8-10 is believed to be in order and is respectfully solicited. Should the Examiner wish to speak with applicants' attorneys, they may be reached at the number indicated below.

The Commissioner is hereby authorized to charge any additional fee which may be required in connection with this submission to Deposit Account No. 23-0785.

Respectfully submitted,

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